## §153.466 Electrical equipment.

A tankship carrying a flammable or combustible cargo under this part must meet subchapter J of this chapter.

DESIGN AND EQUIPMENT FOR POLLUTION CONTROL.

SOURCE: Sections 153.470 through 153.491 appear at CGD 81–101, 52 FR 7781, Mar. 12, 1987, unless otherwise noted.

## § 153.470 System for discharge of NLS residue to the sea: Categories A, B, C, and D.

Unless waived under §153.491, each ship that discharges Category A, B, or C NLS residue, or Category D NLS residue not diluted to 1/10th of its original concentration, into the sea under §§153.1126 and 153.1128 must have an NLS residue discharge system meeting the following:

(a) Minimum diameter of an NLS residue discharge outlet. The outlet of each NLS residue discharge system must have a diameter at least as great as that given by the following formula:

$$D = \frac{(Q_d)(cosine \phi)}{5L}$$

where:

D=Minimum diameter of the discharge outlet in meters.

 $Q_d$ =Maximum rate in cubic meters per hour at which the ship operator wishes to discharge slops (note:  $Q_d$  affects the discharge rate allowed under \$153.1126(b)(2)).

L=Distance from the forward perpendicular to the discharge outlet in meters.

\$\phi\$=The acute angle between a perpendicular
to the shell plating at the discharge location and the direction of the average velocity of the discharged liquid.

(b) Location of an NLS residue discharge outlet. Each NLS residue discharge outlet must be located—

(1) At the turn of the bilge beneath the cargo area; and

(2) Where the discharge from the outlet is not drawn into the ship's seawater intakes.

(c) Location of dual NLS residue discharge outlets. If the value of 6.45 for K is used in §153.1126(b)(2), the NLS residue discharge system must have two

outlets located on opposite sides of the ship.

[CGD 81-101, 52 FR 7781, Mar. 12, 1987, as amended by CGD 81-101, 53 FR 28974, Aug. 1, 1988 and 54 FR 12629, Mar. 28, 1989; CGD 95-028, 62 FR 51209, Sept. 30, 1997]

## § 153.480 Stripping quantity for Category B and C NLS tanks on ships built after June 30, 1986: Categories B and C.

Unless waived under §153.491, Category B and C NLS cargo tanks on each ship built after June 30, 1986 must have stripping quantities determined under §153.1604 that are less than—

(a)  $0.15 \text{ m}^3$  if Category B; and

(b) 0.35 m<sup>3</sup> if Category C.

## § 153.481 Stripping quantities and interim standards for Category B NLS tanks on ships built before July 1, 1986: Category B.

Unless waived under §153.483 or §153.491, each Category B NLS cargo tank on ships built before July 1, 1986 must meet the following:

(a) Unless the tank meets the interim standard provided by paragraph (b) of this section and is prewashed in accordance with §153.1118, the tank must have a stripping quantity determined under §153.1604 that is less than 0.35m<sup>3</sup>.

(b) Before October 3, 1994, the tank may have a total NLS residue determined under  $\S153.1608$  that is less than  $1.0~\text{m}^3$  or  $\frac{1}{3000}$ th of the tank's capacity and an NLS residue discharge system meeting the following:

(1) The system must be capable of discharging at a rate equal to or less than Q in the following formula:

Q=K  $U^{1.4} L^{1.6} \times 10^{-5} m^3/hr$ 

where:

K=4.3, except K=6.45 if the discharge is equally distributed between two NLS residue discharge outlets on opposite sides of the ship (see §§153.470(c) and 153.1126(b)).

L=ship's length in meters.

U=for a ship that is self-propelled, the minimum speed in knots specified in the approved Procedures and Arrangements Manual for discharging Category B NLS residue, but at least 7:

U=for a ship that is not self-propelled, the minimum speed in knots specified in the approved Procedures and Arrangements Manual for discharging Category B NLS residue, but at least 4.